

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Srinath Hosur et al.
Serial No: 09/649,390
Filed: 8/28/2000
Title: Receiver Algorithm for The Length 4 CFC
Art Unit: 2631
Examiner: Bocure
Docket No.: TI-29602
Conf. No.: 7193

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NOTICE OF APPEAL

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Applicant hereby appeals to the Board of Appeals from the decision of the Primary Examiner dated 01/08/2004 all rejected claims.

The item(s) checked below are appropriate:

1. An extension of time to respond to the final rejection

was granted on _____

is requested for 1 (one) month(s).

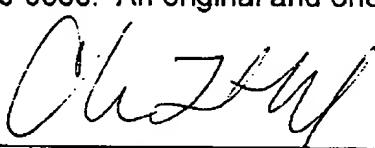
2. A timely response to the final rejection has been filed.

3. Fee \$330.00:

Not required (Fee paid in prior appeal).

The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment to the Deposit Account of Texas Instruments Incorporated, Account No. 20-0668. An original and one copy of this sheet are enclosed.

Signature [Rule 191(b)]



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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Appl.No.: 09/649,390
Applicant: Hosur et al
Filed: August 8, 2000
TC/AU: 2631
Examiner: Bocure

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Docket: TI-29602
Cust.No.: 23494

APPELLANTS' BRIEF

Commissioner for Patents
P.O.Box 1450
Alexandria VA 22313-1450

Sir:

The attached sheets contain the Rule 192(c) items of appellants' brief.
The Commissioner is hereby authorized to charge the fee for filing a brief in
support of the appeal plus any other necessary fees to the deposit account of
Texas Instruments Incorporated, account No. 20-0668. A fee transmittal sheet is
enclosed.

Respectfully submitted,



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Rule 192(c)(1) Real party of interest

Texas Instruments Incorporated owns the application.

Rule 192(c)(2) Related appeals and interferences

There are no related dispositive appeals or interferences.

Rule 192(c)(3) Status of claims

Claims 1-11 are pending in the application with claims 7-11 withdrawn from consideration, claims 1-2 and 6 allowed, and claims 3-5 finally rejected. This appeal involves the finally rejected claims.

Rule 192(c)(4) Status of amendments

There is no amendment after final rejection.

Rule 192(c)(5) Summary of the invention

The invention provides a method of decoding in wireless CDMA communication by maximizing linear combinations of despreadings of received signals of the type of linear combinations of synchronization codes which form comma-free code (CFC) codewords. Application pages 18-20 describe a preferred embodiment which decodes linear combinations of synchronization codes as listed in Figure 7a.

Rule 192(c)(6) Issues

The issue presented on appeal is:

whether claims 3-5 are indefinite as being omnibus claims.

Rule 192(c)(7) Grouping of the claims

The claims are treated as a single group.

Rule 192(c)(8) Argument

Claims 3-5 were rejected as indefinite; the Examiner asserted that the claims are omnibus claims.

Appellants reply that claims 3-5 depend from claim 2 and specify synchronization code combinations as listed in Figures 1b, 6, and 7a, respectively. These three figures are essentially short lists of possible synchronization code combinations and are not indefinite. Consequently, claims 3-5 are not omnibus claims.

Rule 192(c)(9) Appendix

Claim 1 (allowed) A method for decoding received sums of QPSK-modulated spreading codes corresponding to elements of CFC codewords, comprising:

- (a) despreading received sums of QPSK-modulated spreading codes with each of said spreading codes;
- (b) forming linear combinations with coefficients ± 1 and $\pm j$ of the results of step (a), said combinations corresponding to possible sums as elements of CFC codewords;
- (c) finding the maximum of said combinations of step (b);
- (d) determining a codeword and cyclic shift from the results of step (c).

Claim 2 (allowed) The method of claim 1, wherein:

- (a) said sums of step (a) of claim 1 are each sums of three QPSK-modulated spreading codes.

Claim 3 (finally rejected) The method of claim 2, wherein:

- (a) said sums of step (a) of claim 2 are selected from the group consisting of the sums indicated in slot columns of Figure 1b wherein C_0, C_1, \dots, C_{11} represent said spreading codes.

Claim 4 (finally rejected) The method of claim 2, wherein:

- (a) said sums of step (a) of claim 2 are selected from the group consisting of the sums indicated in the slot columns of Figure 6 wherein C_0, C_1, \dots, C_5 represent said spreading codes..

Claim 5 (finally rejected) The method of claim 2, wherein:

- (a) said sums of step (a) of claim 2 are selected from the group consisting of the sums indicated in the slot columns of Figure 7a wherein C_0, C_1, \dots, C_{15} represent said spreading codes..